



DATA LOGGER BASICS FOR VFC PROVIDERS

MONTANA IMMUNIZATION PROGRAM



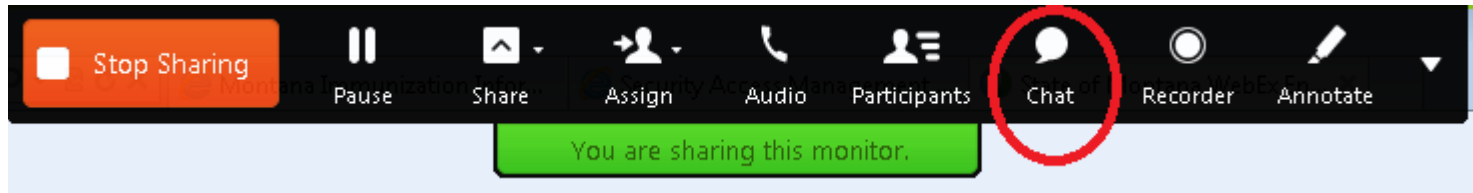
Use the
“Call Me”
Feature



Call Me
The meeting will call you.



Meeting Password: montana
Audio Access Code: 801 773 470



Webinar House Keeping

We mute all participants upon entering the presentation

Use the “Chat” feature during the presentation for questions.

We will unmute lines at the end for questions.

This presentation will be posted to www.immunization.mt.gov under the VFC Training and Resource Page.

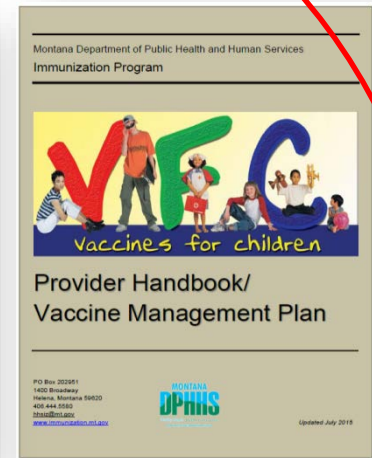
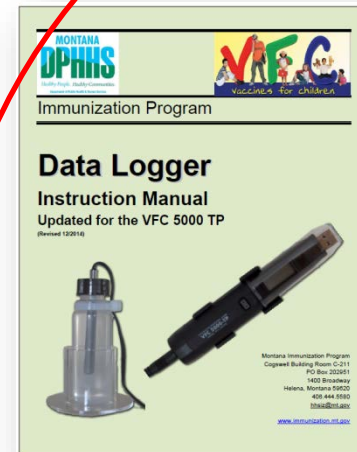
Let's get started!!

VACCINE STORAGE AND HANDLING RESOURCES

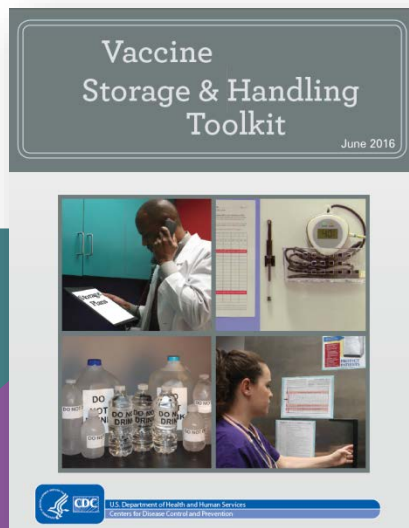
Montana VFC Program:

- *VFC Provider Handbook* – Sections 13 and 14
- *Data Logger Instruction Manual* (VFC5000-TC)
- Paper Temperature Logs

www.immunization.mt.gov “Vaccines for Children”



CDC Vaccine Storage and Handling Toolkit.



WHY MONITOR TEMPERATURES?

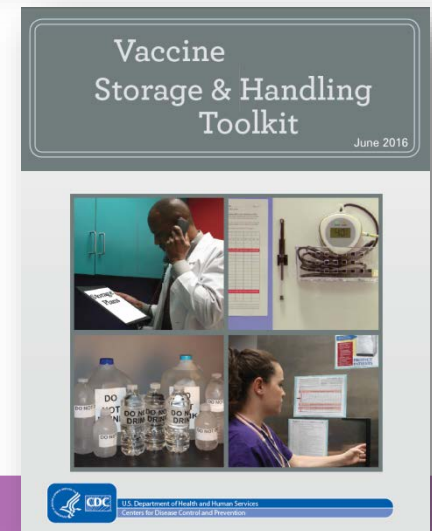
Vaccines are expensive and fragile.

Cold Chain – Documentation of proper temperature storage

- Manufacture >>> Administration
- Immunization providers are the last link in the chain.

Approved Standard of Care - Temperature monitoring is part of the approved standard of care for all public and private immunization providers – *CDC Vaccine Storage and Handling Toolkit*

VFC Providers are expected to follow the approved standard of care for immunizations.



WHAT DO YOU NEED TO MONITOR TEMPERATURES?

Appropriate vaccine storage units:

- CDC and Montana VFC Policy:
 - No dormitory-style units
 - No using the freezer in a combination refrigerator/freezer unless it is pharmaceutical grade with separate compressors.
- New or replacement units must comply with CDC recommendations:
 - 1) Pharmaceutical-grade stand-alone or combination units
 - 2) Household/commercial stand-alone units
 - 3) Household/commercial combination units using only the refrigerator section.



OR

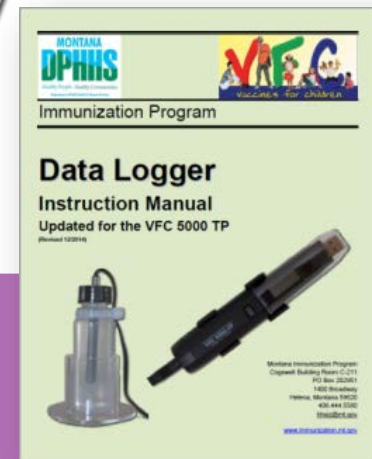


WHAT DO YOU NEED TO MONITOR TEMPERATURES?

CDC-compliant thermometer

- Be continuous recording devices that take readings at least every 30 minutes
- Read temperatures from a buffered probe
- Generate data that is reviewable, archivable, and able to be sent to the Immunization Program for review
- Alarm to indicate temperatures outside proper vaccine storage parameters
- Have a current certificate of calibration testing

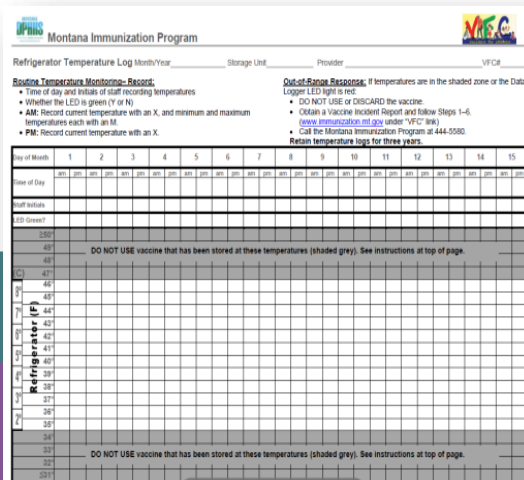
VFC5000 TP – Montana VFC providers are required to use this device unless they have an approved exemption.



WHAT DO YOU NEED TO MONITOR TEMPERATURES?

Montana Immunization Program - Paper Temperature Logs:

- www.immunization.mt.gov Vaccines for Children link
- Separate form for refrigerator and freezer
- Instructions for routine temperature monitoring and out-of-range response
- Page 3 is a “Trouble-shooting log”
 - Used to input data into imMTrax “Cold Chain” module



Montana Immunization Program

Refrigerator Temperature Log Month/Year _____ Storage Unit _____ Provider _____ VFC# _____

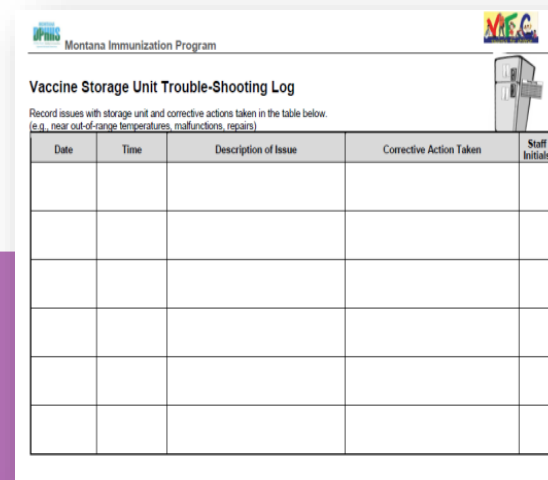
Routine Temperature Monitoring- Record:

- Time of day and initials of staff recording temperatures
- Whether the LED is green (Y or N)
- AM: Record current temperature with an X, and minimum and maximum temperatures each with an M.
- PM: Record current temperature with an X.

Out-of-Range Response: If temperatures are in the shaded zone or the Data Logger LED light is red:

- DO NOT USE or DISCARD the vaccine.
- Obtain a Vaccine Incident Report and follow Steps 1-6. (www.immunization.mt.gov under "VFC" link)
- Call the Montana Immunization Program at 444-2580.
- Retain temperature logs for three years.

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time of Day															
Staff Initials															
LED Green?															
Temp															
Min															
Max															
DO NOT USE vaccine that has been stored at these temperatures (shaded grey). See instructions at top of page.															
Temp															
Min															
Max															
DO NOT USE vaccine that has been stored at these temperatures (shaded grey). See instructions at top of page.															
Temp															
Min															
Max															



Montana Immunization Program

Vaccine Storage Unit Trouble-Shooting Log

Record issues with storage unit and corrective actions taken in the table below. (e.g., near out-of-range temperatures, malfunctions, repairs)

Date	Time	Description of Issue	Corrective Action Taken	Staff Initials

WHAT DO YOU NEED TO MONITOR TEMPERATURES?

ONLINE - Vaccine Incident Report (VIR):

- To report temperature excursions, submit data, and request data logger help.
- Instructions are on the form.
- Field for uploading data files.
- Sends an email to the Immunization Program.
- Email or phone response.
- Bookmark for future reference.

The screenshot shows a web form titled "Vaccine Incident Report – MT Immunization Program" with the WUFOO logo at the top. The form includes instructions for reporting temperature excursions and a list of seven steps to follow. At the bottom, there are input fields for "Facility Name and VFC PIN", "Your Name" (split into First and Last), "Email", and "Phone Number" (split into three parts: ###, ###, and ####).

Vaccine Incident Report – MT Immunization Program
Please complete this form to request data logger, vaccine storage unit, or temperature excursion support from the Montana Immunization Program.

If your public vaccine has experienced inappropriate storage conditions, please do the following:

1. Do not use or discard the affected vaccine.
3. Quarantine the affected vaccine and post a clear "Do Not Use" sign. ("Bag and Tag")
2. Contact your VFC Vaccine Manager or Alternate (if primary is unavailable).
4. If the situation is temporary or remedied within 1.5 hours, keep the vaccine in its original storage unit with the door closed. Monitor Data Loggers closely and take action if temperatures go out of range (See #5).
5. If necessary, move the vaccine to an alternate storage location that holds proper temperatures and has temperature monitoring capability. Record the time you removed the vaccine.
6. Download data logger data. If necessary, reset and reinstall data loggers so that the storage unit with vaccine continues to be monitored.
7. Complete and submit this form. Attach data logger files, if applicable. We will contact you shortly.

Questions? hhsiz@mt.gov 444-5580

Facility Name and VFC PIN *

Your Name *
First Last

Email *

Phone Number *
- ### -

WHAT DO YOU NEED TO MONITOR TEMPERATURES?

Trained, competent staff:

Vaccine manager and alternate manager are the experts:

- Set-up, download, read data, trouble-shoot, submit Vaccine Incident Reports, and send data
- Train and supervise staff involved in temperature monitoring
- Review paper temperature logs

All staff involved in temperature monitoring should be able to:

- Check and log twice daily readings
- Know when and how to respond to out-of-range indications

New Vaccine Managers and Alternate Vaccine Managers must:

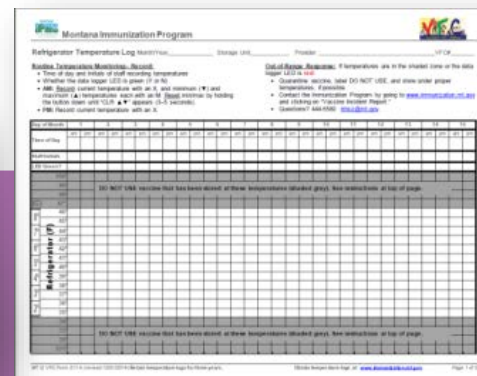
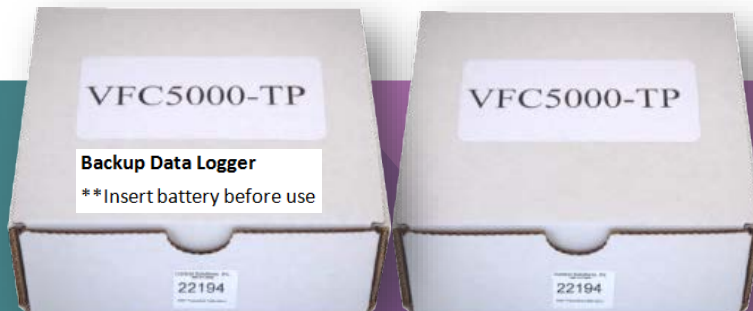
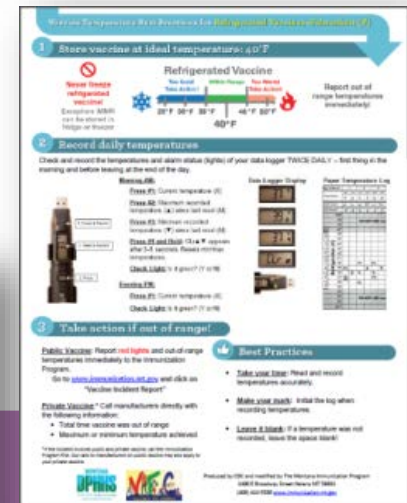
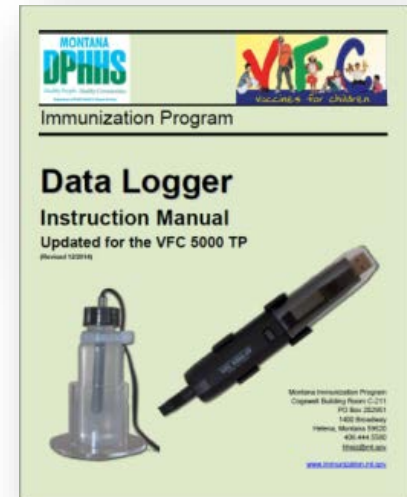
- Notify the Immunization Program
- Complete the Provider Education Requirement



DATA LOGGERS

What's in the package?

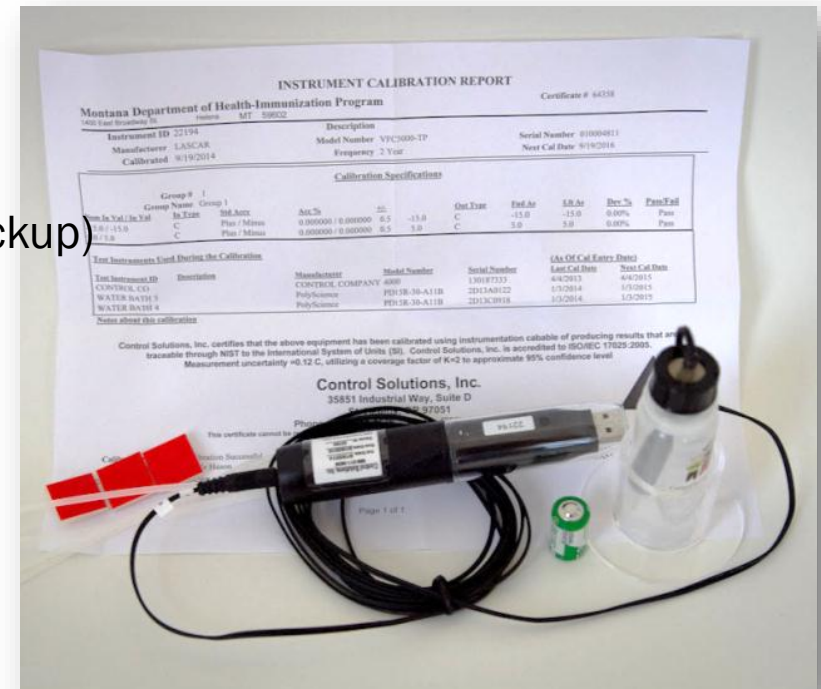
- Data Logger Instruction Manual
- Best Practices Posters
- Paper Temperature Logs
- Data Loggers (enough for your public vaccine storage units – refrigerators and freezers.)
- One Backup Data Logger (NOT activated, battery removed)
- Cradles (if applicable)



DATA LOGGERS

What's in the box?

- Data Logger (battery installed, activated for either ref or freezer unless backup)
- Calibration Certificate
- Plastic glycol-filled vial with probe, 10ft. wire, and radio jack
- Acrylic vial stand
- Ties and sticky squares
- Extra battery



- Save original box with certification and spare parts. Store in a well-marked, well-communicated place along with Backup Data Logger.
- Keep data logger and probe together (matching numbers on probe wire and data logger).

DATA LOGGERS

What's not in the box?



- **Software:**
EasyLog Version 7.0 (or higher)
Download from Internet – FREE!!!
(www.immunization.mt.gov under “VFC”)

Make sure everyone involved in temperature monitoring can access EasyLog software and data files.

DATA LOGGERS

PROPER VACCINE PLACEMENT (SECTION 13 OF VFC PROVIDER HANDBOOK)

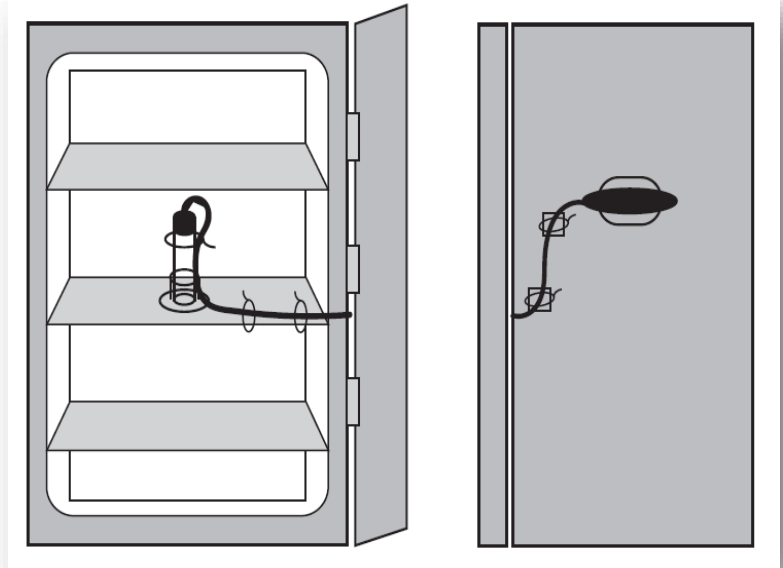
- Keep in original boxes.
- Leave air spaces between boxes.
- Keep vaccine and data logger probe away from ceiling, floor, walls, vents, fans, and coils.
- DO NOT store vaccines in a closed, “non-breathable” container.
- DO NOT store vaccine in doors or crisper drawers. Instead, fill with water bottles.
- If using a combo refrigerator/freezer, keep vaccine and data logger probe away from air vent from the freezer.



DATA LOGGERS

INSTALLING THE THERMO-COUPLE PROBE (SECTION 4 DATA LOGGER INSTRUCTION MANUAL)

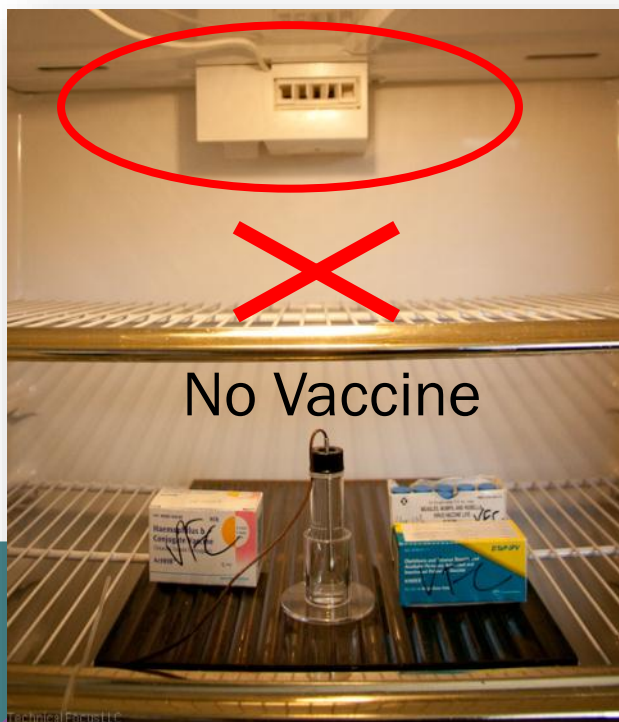
- Centrally locate with vaccine.
- Keep data logger probe away from ceiling, floor, walls, vents, fans, and coils.
- Run wire along shelf edge and out hinge-side of door. Stabilize probe vial and wire with plastic ties and sticky squares (or tape).
- Attach cradle so probe wire can easily reach the back of the data logger. Wire must stay firmly seated in the device.
- Tidy-up excess wire so it is not bumped, pulled, or jostled.
- Equilibrate probe for 1–2 hours before attaching data logger.



- **Helpful Tips:**
 - Attach temporarily at first with tape and twist ties. Then secure with sticky squares and plastic ties.
 - Glass shelves? Use tape.
 - Is door reversible?
 - Secure the vial stand in place with tape.

COMBINATION REFRIGERATOR/FREEZERS AND DATA LOGGERS

Vent channeling air in from the freezer.



DATA LOGGER – OUT OF THE BOX

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

Data Loggers come already setup (except backups), but things happen in transit:

- **PS** - If the display is flashing PS, it is set-up and ready to go. Equilibrate probe, attach probe wire, push button to start recording.



DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)



When do you have to Setup/Reset?

- Three dashes
- Using backup data logger for the first time.
- After each data download



DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

EasyLogUSB

Options Help

Name the USB data logger to give it a unique identity.

Logger name: (max 15 characters) MT Clinic R

For example: Outside Temp

Select temperature scale and thermistor probe type.

°C °F Thermistor Type

Type 2

Select how frequently the USB data logger will log a reading. This also determines the period of time until the logger is full (shown in brackets).

5 Mins (3.5 Months)

Cancel Back Next

Already named.
Please DO NOT
rename without
contacting the
Immunization
Program.

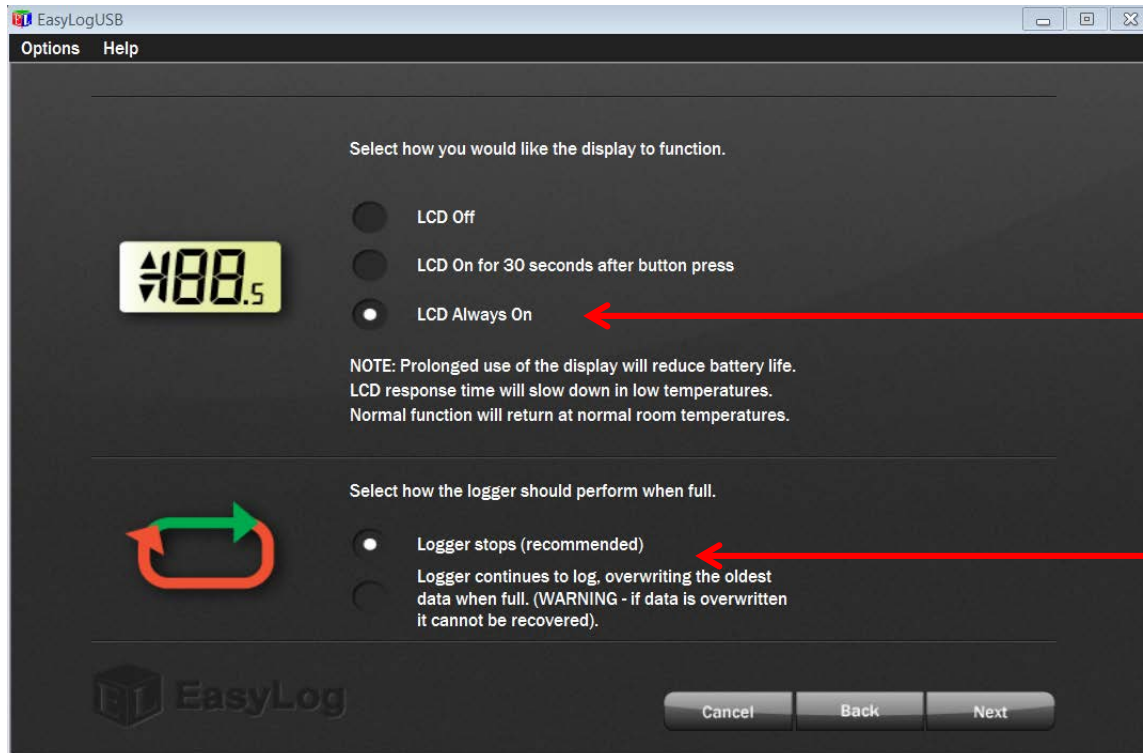
Type 2

5 mins (3.5 months)

Next...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)



LCD Always On

Logger stops

Next...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

Temperature Alarm Thresholds



The screenshot shows the 'EasyLogUSB' application window. The title bar includes 'Options' and 'Help' menus. The main heading is 'Refrigerator' in yellow. Below it, a instruction reads: 'Select the Alarms to be set, otherwise click 'Next' to continue.' There are three checkboxes: 'High Alarm' (checked), 'Low Alarm' (checked), and 'Disable LEDs' (unchecked). To the left of these is an icon of a thermometer and a bell. A note states: 'Note: Tick 'Hold' for the USB Data Logger to continue indicating an alarm condition even when the value has returned to within the set parameters.' Below this, the 'High Alarm' is set to '47.0 °F' with a 'Hold' checkbox checked. The 'Low Alarm' is set to '34.0 °F' with a 'Hold' checkbox checked. At the bottom left is the 'EasyLog' logo, and at the bottom right are 'Cancel', 'Back', and 'Next' buttons.

EasyLogUSB

Options Help

Refrigerator

Select the Alarms to be set, otherwise click 'Next' to continue.

☒ High Alarm

☒ Low Alarm ☐ Disable LEDs

Note: Tick 'Hold' for the USB Data Logger to continue indicating an alarm condition even when the value has returned to within the set parameters.

High Alarm 47.0 °F ☒ Hold

Low Alarm 34.0 °F ☒ Hold

EasyLog

Cancel Back Next

Or...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

Temperature Alarm Thresholds



The screenshot shows the 'EasyLogUSB' application window. The title bar includes 'Options' and 'Help' menus. The main heading is 'Freezer' in yellow. Below it, a instruction reads: 'Select the Alarms to be set, otherwise click 'Next' to continue.' There are three checkboxes: 'High Alarm' (checked), 'Low Alarm' (checked), and 'Disable LEDs' (unchecked). To the left of these is an icon of a thermometer and a bell. A note states: 'Note: Tick 'Hold' for the USB Data Logger to continue indicating an alarm condition even when the value has returned to within the set parameters.' Below this, the 'High Alarm' is set to '6.0 °F' with a 'Hold' checkbox checked. The 'Low Alarm' is set to '-31.0 °F' with a 'Hold' checkbox checked. At the bottom left is the 'EasyLog' logo, and at the bottom right are 'Cancel', 'Back', and 'Next' buttons.

EasyLogUSB

Options Help

Freezer

Select the Alarms to be set, otherwise click 'Next' to continue.

☒ High Alarm

☒ Low Alarm ☐ Disable LEDs

Note: Tick 'Hold' for the USB Data Logger to continue indicating an alarm condition even when the value has returned to within the set parameters.

High Alarm 6.0 °F ☒ Hold

Low Alarm -31.0 °F ☒ Hold

EasyLog

Cancel Back Next

Next...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

Alarm Delay



Or...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

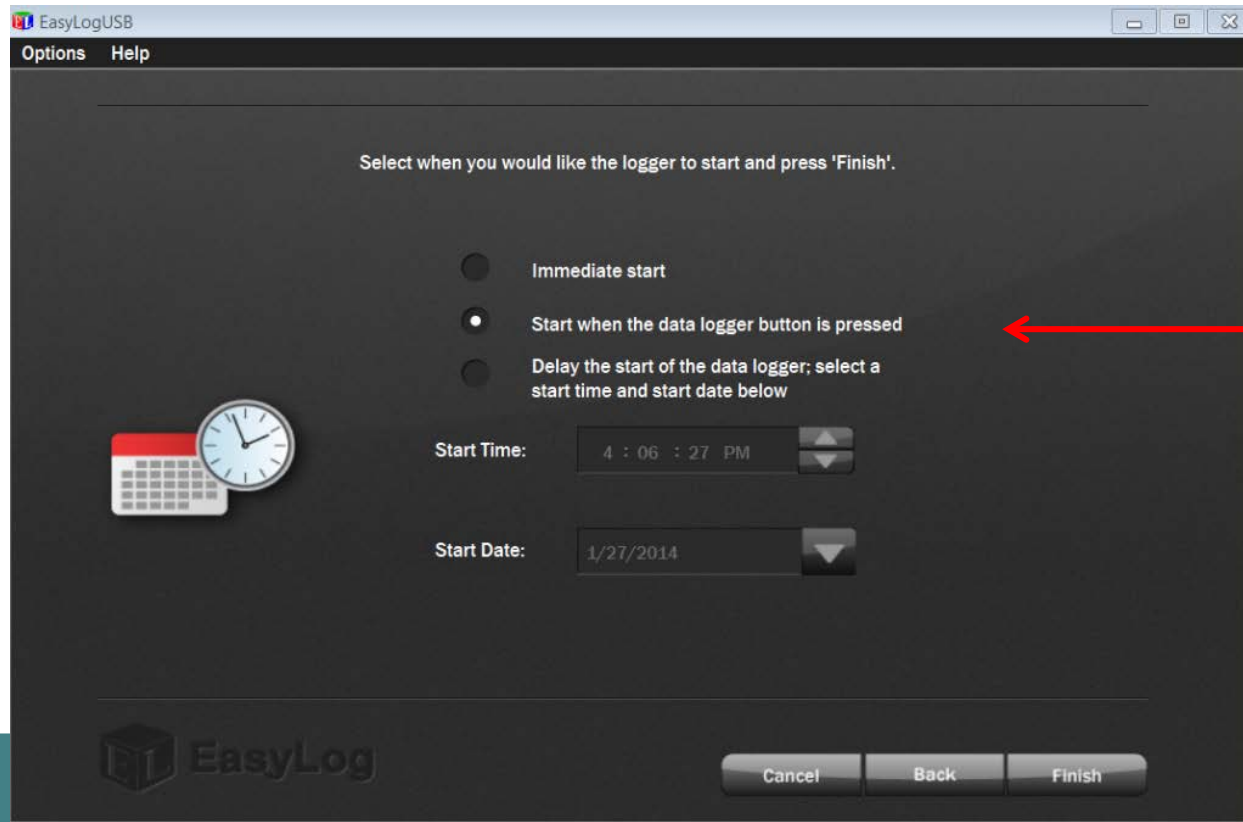
Alarm Delay



Next...

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)



← Push-Button Start

Finish...

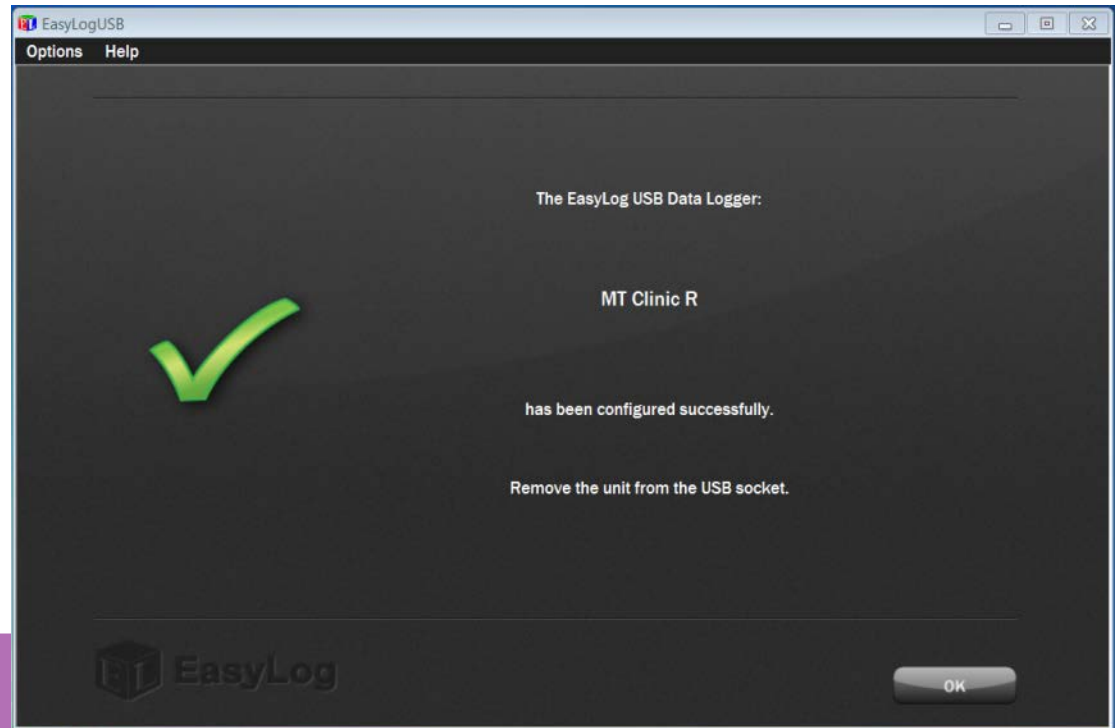
DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

Remove Data Logger
from USB:



Data logger is set for
“Push Start.”



**DON'T PUSH
YET!!!**

OK

DATA LOGGER – SETUP/RESET

(SECTION 5 DATA LOGGER INSTRUCTION MANUAL)

1. Place the data logger in its cradle
2. Attach the probe wire
3. THEN push the start button.

LOG >>> 39F

— — — >>> Data logger is not set. Start over in Section 5.



Prob/2 >>> Probe is not attached, is loose, or there is a short in the wire. Firmly attach probe.

DATA LOGGERS – TWICE DAILY READING

(Section 6 Data Logger Instruction Manual):



Morning AM:

No Press: Current temperature (X)

Press #1: Maximum recorded temperature (▲) since last reset (M)

Press #2: Minimum recorded temperature (▼) since last reset (M)

Press #3 and Hold: CLr▲▼ appears after 3–5 seconds. Resets min/max temperatures.

Check Light: Is it green? (Y or N)

Evening PM:

No Press: Current temperature (X)

Check Light: Is it green? (Y or N)

Data Logger Display



Paper Temperature Log

Day of Month	1		2		3	
Time of Day	am	pm	am	pm	am	pm
Staff Initials	kh	gt	kh	Bl	kh	3/2
LED Green?	Y	Y	Y	Y	Y	Y
≥50°						Y
49°						
48°						
47°						
46°						
45°						
44°						
43°						
42°						
41°						
40°				M		M
39°	M				X	
38°		X	X			X
37°	X					M
36°	M					
35°			M			
34°						
33°						
32°						
≤31°						

- **Red lights** (other than triple flash “probe connection errors”) **ALWAYS** mean out-of-range temperatures. **RESPOND** and **INVESTIGATE!!!**

DATA LOGGERS

Twice Daily Readings

(Section 8 *Data Logger Instruction Manual*)

Refrigerator Temperature Log Month/Year _____ Storage Unit _____ Provider _____ VFC# _____

Routine Temperature Monitoring- Record:

- Time of day and Initials of staff recording temperatures
- Whether the data logger LED is green (Y or N)
- AM: Record current temperature with an X, and minimum (▼) and maximum (▲) temperatures each with an M. Reset min/max by holding the button down until "CLR ▲▼" appears (3-5 seconds).
- PM: Record current temperature with an X.

Out-of-Range Response: If temperatures are in the shaded zone or the data logger LED is **red**:

- Quarantine vaccine, label DO NOT USE, and store under proper temperatures, if possible.
- Contact the Immunization Program by going to www.immunization.mt.gov and clicking on "Vaccine Incident Report."
- Questions? 444-5580 hhsiz@mt.gov

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Time of Day	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Staff Initials																
LED Green?																
≥50°																
49°																
48°																
(C)																
47°																
46°																
45°																
44°																
43°																
42°																
41°																
40°																
39°																
38°																
37°																
36°																
35°																
34°																
33°																
32°																
≤31°																

DATA LOGGERS

Out-of-Range Response – How?

(Section 8 *Data Logger Instruction Manual*):

Instructions are on:

- Paper temperature logs
- Best Practices Posters
- Vaccine Incident Report
- VFC Provider Handbook.

Out-of-Range Response:

1. Quarantine the vaccine.
2. Label DO NOT USE
3. Store under appropriate temperature, if possible or move to emergency storage location.
4. Download data logger data (reset and reinstall data logger, if applicable)
5. Submit an online Vaccine Incident Report
6. Wait for our reply.



DATA LOGGERS

Out-of-Range Response – When?

(Section 8 *Data Logger Instruction Manual*)

Refrigerator Temperature Log Month/Year _____ Storage Unit _____ Provider _____ VFC # _____

Routine Temperature Monitoring– Record:

- Time of day and Initials of staff recording temperatures
- Whether the data logger LED is green (Y or N)
- AM: Record current temperature with an X, and minimum (▼) and maximum (▲) temperatures each with an M. **Reset** min/max by holding the button down until "CLR ▲▼" appears (3–5 seconds).
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- Quarantine vaccine, label DO NOT USE, and store under proper temperatures, if possible.
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- Questions? 444-5580 bhsiz@mt.gov

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time of Day	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am
Staff Initials															
LED Green?															
Refrigerator (F)	≥50°														
	49°														
	48°														
	47°														
	46°														
	45°														
	44°														
	43°														
	42°														
	41°														
	40°														
	39°														
	38°														
	37°														
	36°														
	35°														
	34°														
	33°														
	32°														
	≤31°														

MT VFC Form 217.4 (Revised 12/01/2016) Retain temperature log for three years. Obtain temperature log at www.immunization.mt.gov Page 1 of 3

Respond immediately if:

Light is **RED**

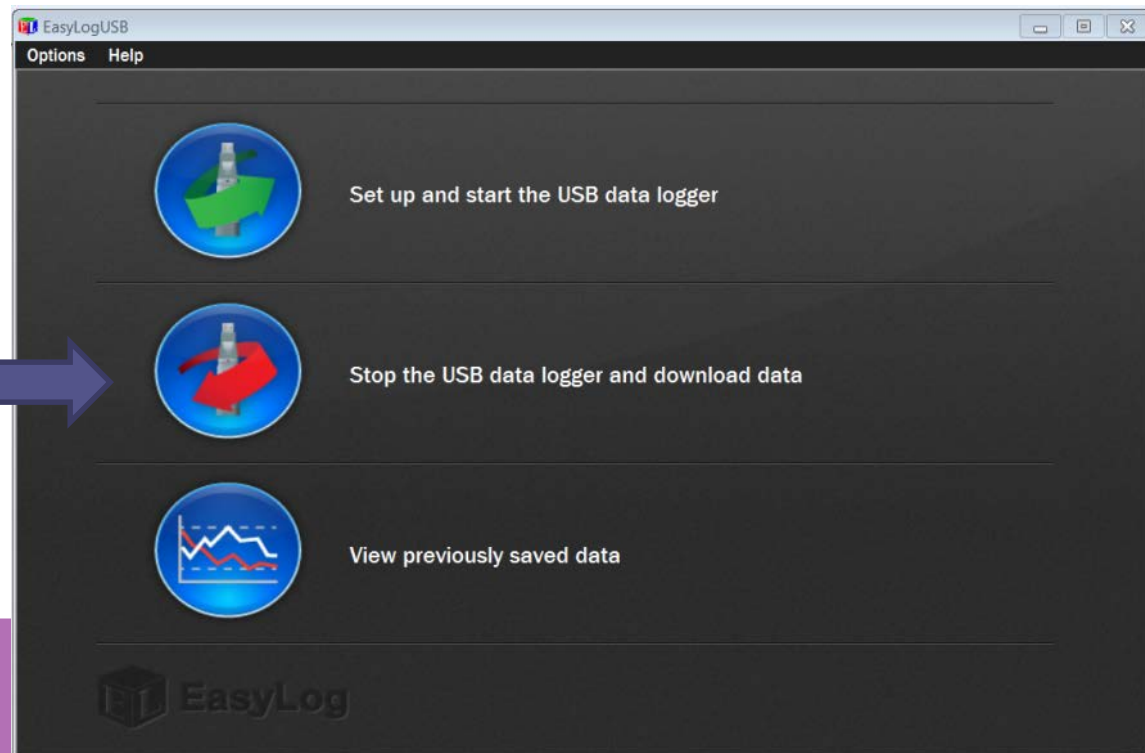
MIN/MAX, or
Current
temperature is in
the grey area.

(One exception!)

DATA LOGGERS

Downloading and Reviewing Data

(Section 10 *Data Logger Instruction Manual*)



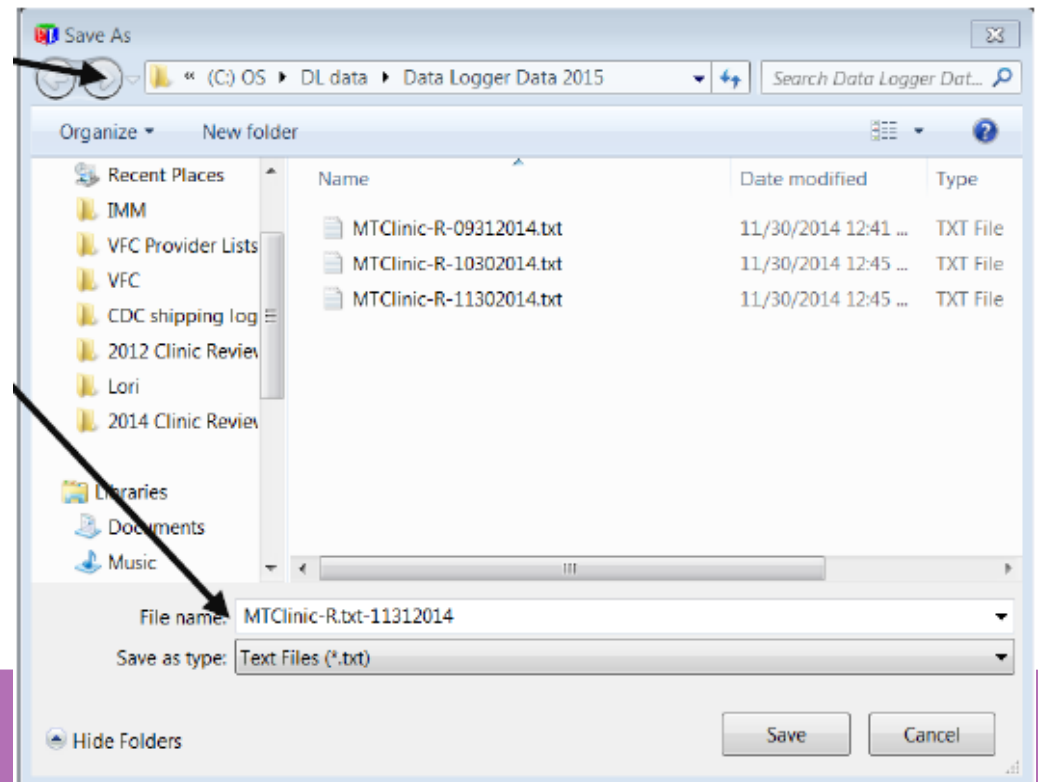
“Yes” on pop-up. Then “OK.”

DATA LOGGERS

Downloading and Reviewing Data

(Section 10 *Data Logger Instruction Manual*):

- Add date to file name to make it unique.
- Save file:
 - Well-labeled location
 - Shared location (if possible)
 - Accessible by anyone involved in data logger management
 - Once designated, EasyLog always uses that location until changed.



DATA LOGGERS

Downloading and Reviewing Data

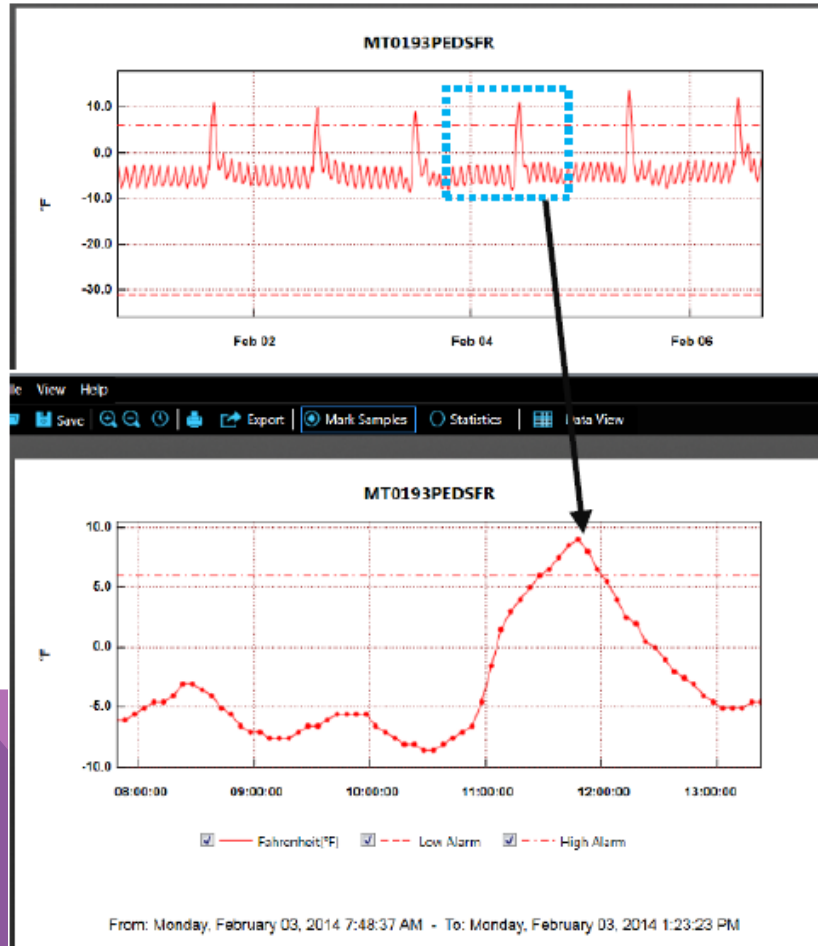
(Section 10 *Data Logger Instruction Manual*)



DATA LOGGERS

Downloading and Reviewing Data

(Section 10 *Data Logger Instruction Manual*)



+ Magnifying Glass

Zoom In

- Magnifying Glass

Zoom Out

Mark Samples

DATA LOGGERS

Downloading and Reviewing Data
(Section 10 Data Logger Instruction Manual):

☐ Full Session ☒ Current View

Fahrenheit(°F)

Max: 9 Min: -8.5

Avg: -2.9 Std: 4.9

Statistics

File View Help

Save Find Export Mark Samples Statistics Graph View

Serial Number: 010023454 MT0193PEDSFR

Show Alarms Only

Reading Date	Fahrenheit(°F)	Comments
2/3/2014 11:12:53 AM	3.0	
2/3/2014 11:17:53 AM	4.0	
2/3/2014 11:22:53 AM	5.0	
2/3/2014 11:27:53 AM	6.0	
2/3/2014 11:32:53 AM	6.5	
2/3/2014 11:37:53 AM	7.5	
2/3/2014 11:42:53 AM	8.5	
2/3/2014 11:47:53 AM	9.0	
2/3/2014 11:52:53 AM	8.0	
2/3/2014 11:57:53 AM	6.5	
2/3/2014 12:02:53 PM	5.5	
2/3/2014 12:07:53 PM	4.0	
2/3/2014 12:12:53 PM	2.5	
2/3/2014 12:17:53 PM	2.0	
2/3/2014 12:22:53 PM	0.5	
2/3/2014 12:27:53 PM	0.0	
2/3/2014 12:32:53 PM	-1.0	

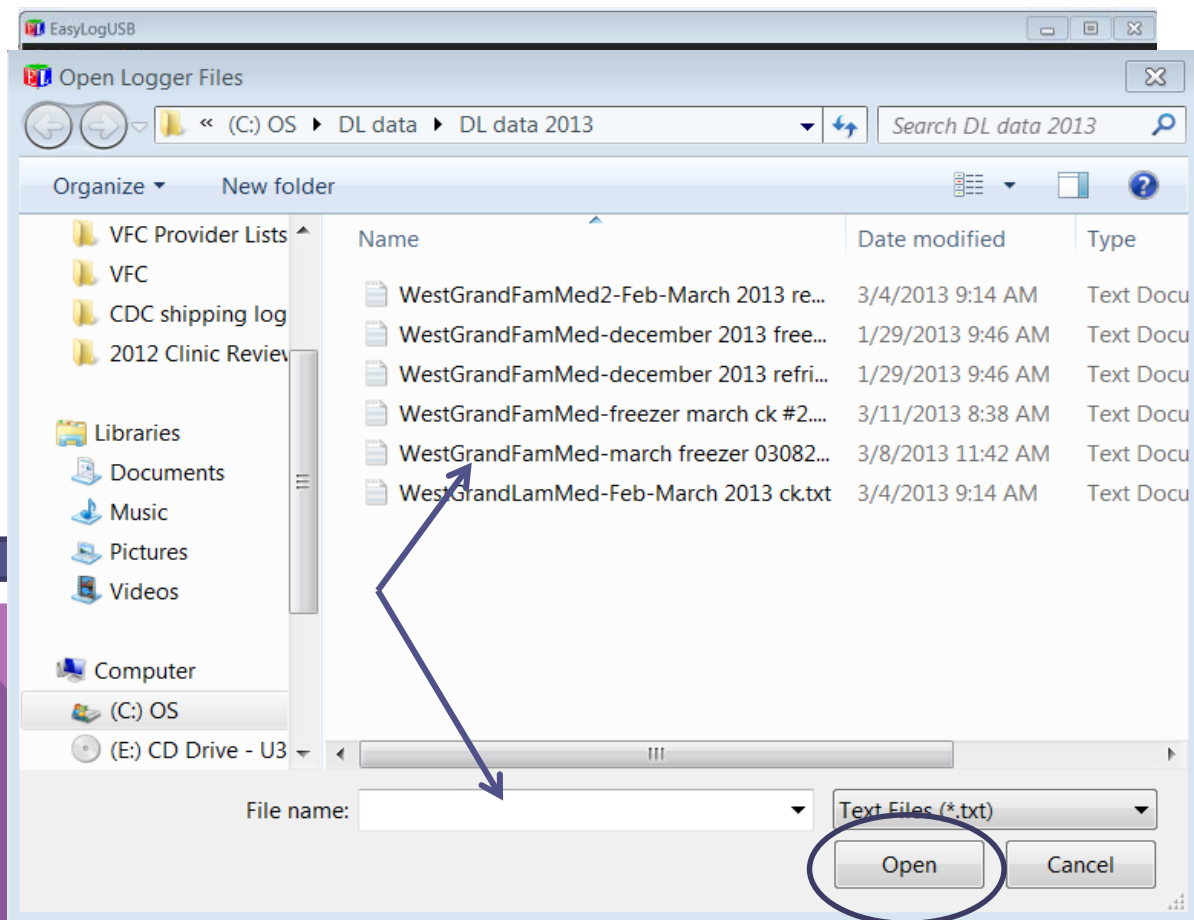
Data View

DATA LOGGERS

Downloading and Reviewing Data

(Section 8 *Data Logger Instruction Manual*)

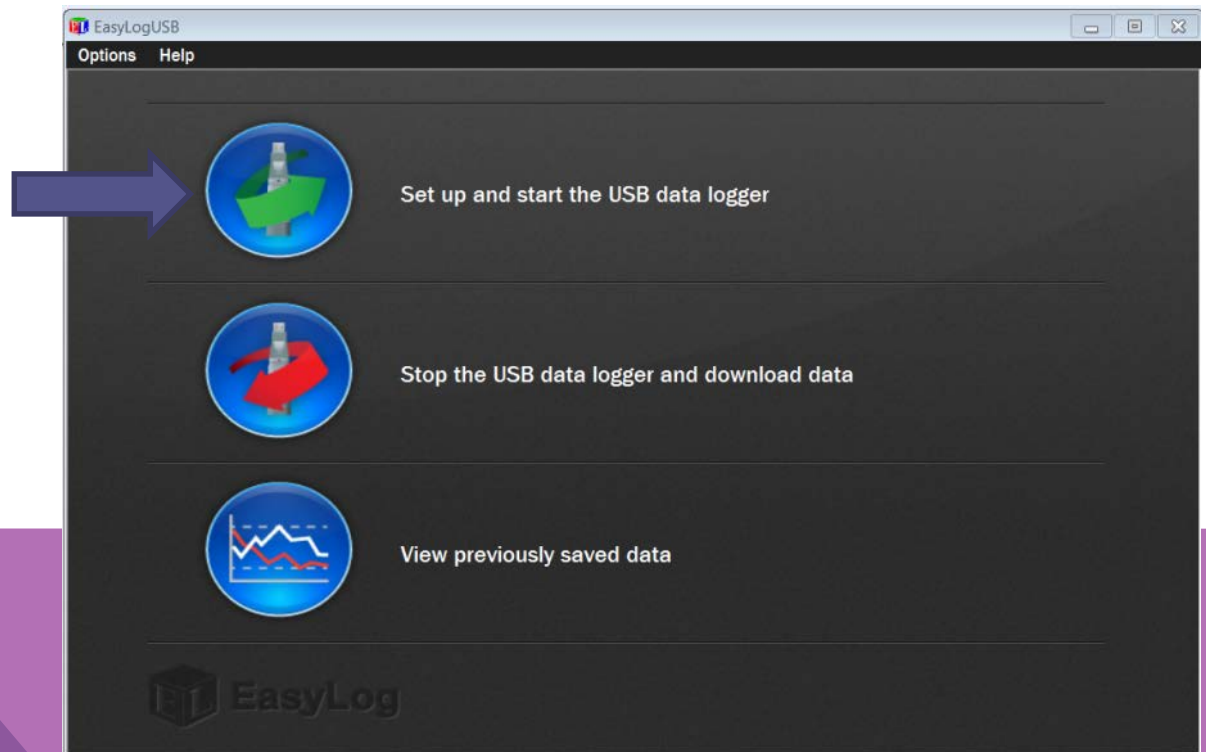
At least once per month or whenever there is an issue that needs investigating.



DATA LOGGERS

Resetting Data Logger
(Section 5 Data Logger Instruction Manual):

After download,
You must RESET the
data logger.



DATA LOGGERS

Sending Data to the Immunization Program (Section 13 Data Logger Instruction Manual)

Submit ONLINE Vaccine Incident Report Upload data file (.txt)

“MTClinic R-12162014.txt”

PLEASE DO NOT:

- Export from EasyLog software
- Print and fax graph
- Convert graph to pdf

The screenshot shows a web form titled "Vaccine Incident Report – MT Immunization Program". It includes instructions for reporting storage issues and a list of seven steps to follow. The form has input fields for Facility Name and VFC PIN, Your Name (First and Last), Email, and Phone Number (Area, Prefix, and Number).

Vaccine Incident Report – MT Immunization Program

Please complete this form to request data logger, vaccine storage unit, or temperature excursion support from the Montana Immunization Program.

If your public vaccine has experienced inappropriate storage conditions, please do the following:

1. Do not use or discard the affected vaccine.
2. Quarantine the affected vaccine and post a clear "Do Not Use" sign. ("Tag and Tag")
2. Contact your VFC Vaccine Manager or Alternate (if primary is unavailable).
4. If the situation is temporary or remedied within 1.5 hours, keep the vaccine in its original storage unit with the door closed. Monitor Data Loggers closely and take action if temperatures go out of range (see #5).
5. If necessary, move the vaccine to an alternate storage location that holds proper temperatures and has temperature monitoring capability. Record the time you removed the vaccine.
6. Download data logger data. If necessary, reset and reinstall data loggers so that the storage unit with vaccine continues to be monitored.
7. Complete and submit this form. Attach data logger files, if applicable. We will contact you shortly.

Questions? hhsinfo@mt.gov 444-5588

Facility Name and VFC PIN *

Your Name *

First Last

Email *

Phone Number *

- -

area prefix number

Upload data logger file (if applicable):

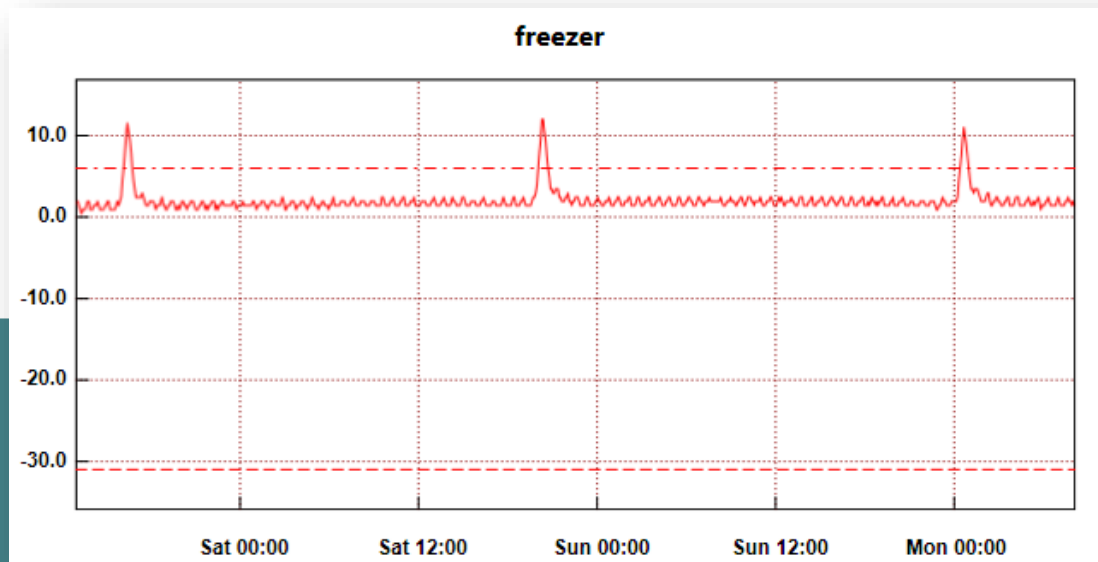
Browse...

DATA LOGGERS

Automatic Defrost or “Frost-Free” Freezers (Section 8, Data Logger Instruction Manual)

What does “Automatic Defrost” Mean?

Roughly once every 24 hours, the freezer warms up for about an hour. This prevents ice from accumulating on the inside of the chamber.



Is the OK?

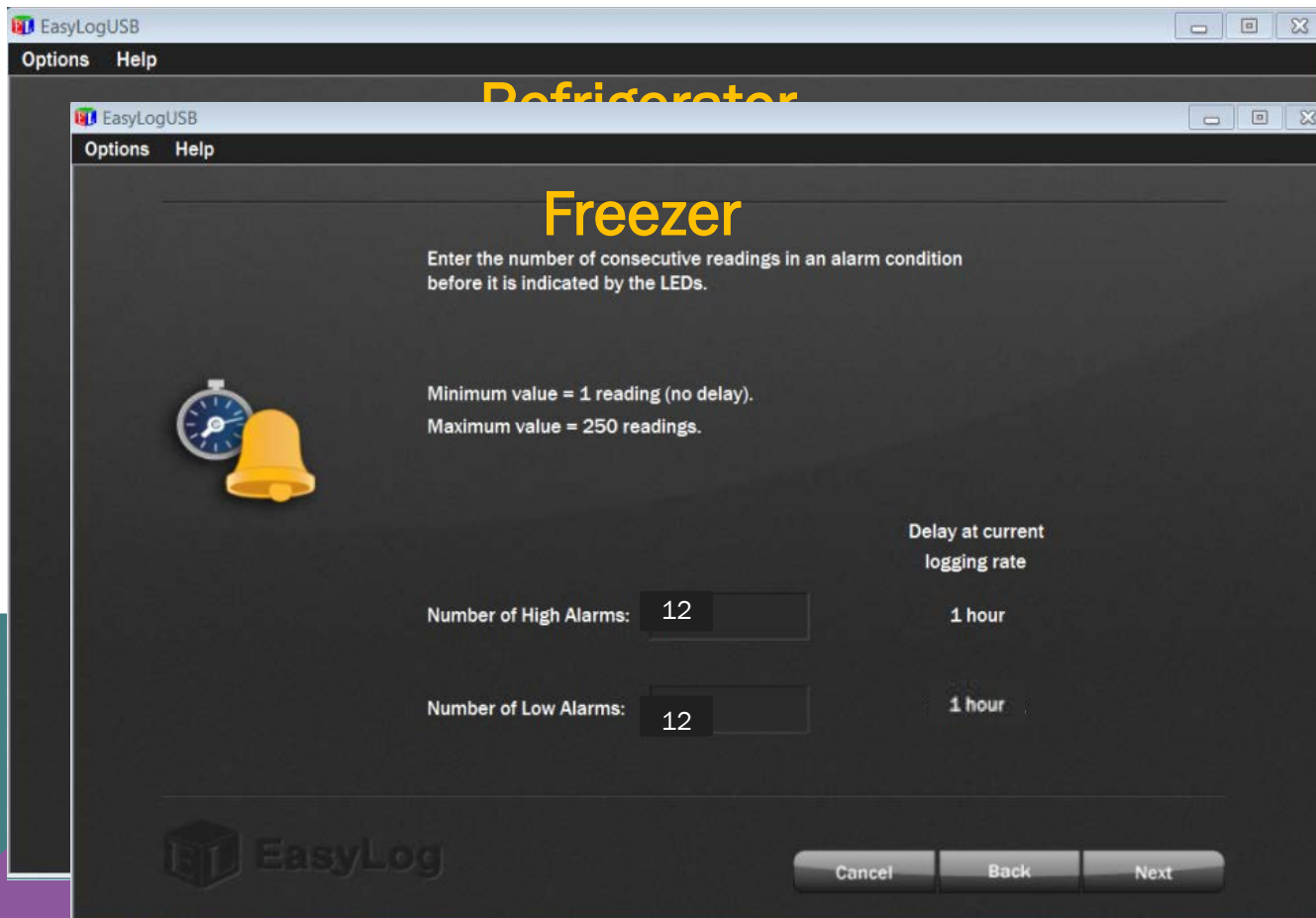
Yes within certain limits.

- \leq One hour or less
- \leq 4 times per day
- $\leq 14^{\circ}\text{F}$.

Won't this trigger **RED LIGHTS**???

DATA LOGGERS

Freezer Defrost Cycles – Alarm Delay (Section 8 Data Logger Instruction Manual):



The screenshot shows the 'EasyLogUSB' software window. The title bar reads 'EasyLogUSB'. Below it is a menu bar with 'Options' and 'Help'. The main window has a dark background with the title 'Freezer' in large yellow text. Below the title, it says 'Enter the number of consecutive readings in an alarm condition before it is indicated by the LEDs.' To the left of the input fields is an icon of a blue clock and a yellow bell. The input fields are labeled 'Number of High Alarms:' and 'Number of Low Alarms:', both with the value '12' entered. To the right of these fields, it says 'Delay at current logging rate' with the value '1 hour' displayed. At the bottom, there is a logo for 'EasyLog' and three buttons: 'Cancel', 'Back', and 'Next'.

Options Help

Freezer

Enter the number of consecutive readings in an alarm condition before it is indicated by the LEDs.

Minimum value = 1 reading (no delay).
Maximum value = 250 readings.

Number of High Alarms: 12

Number of Low Alarms: 12

Delay at current logging rate
1 hour

EasyLog

Cancel Back Next

DATA LOGGERS

Freezer Defrost Cycles

(Section 5, page 6 Data Logger Instruction Manual):

If you have an automatic defrost freezer:

Max temperature will always be out-of-range (consistently)

OK, if no **RED** light

Respond immediately to **RED** light.

Day of Month		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time of Day	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Staff Initials																
LED Green?																
≥11°																
10°																
9°																
8°		DO NOT USE vaccine that has been stored at these temperatures (shaded grey). See instructions at top of page.														
7°																
6°																
Freezer (F)	5°															
	4°															
	3°															
	2°															
	1°															
	0°															
	-1°															
	-2°															
	-3°															
	-4°															
	-5°															
	-6°															
-7°																
-8°																

← **RED-Respond**

← **High Max - OK**

DATA LOGGERS BASICS - RECAP

What you need:

- Proper storage units
- Data loggers
- Paper temperature logs
- Link to Vaccine Incident Report
- Trained, competent staff

Day-to-Day Management:

- AM – Check LED status, log min, max, and current temperatures, reset min/max
- PM – Check LED status, log current temperature
- Respond immediately to **RED** lights and out-of-range temperatures.

Get set up:

- Load vaccine properly
- Install, secure, and equilibrate probe vial
- Set-up data logger
- Attach wire, push button.

Monthly:

- Download, review, and archive data
- Add date for unique file names
- There should be no surprises.

DATA LOGGERS

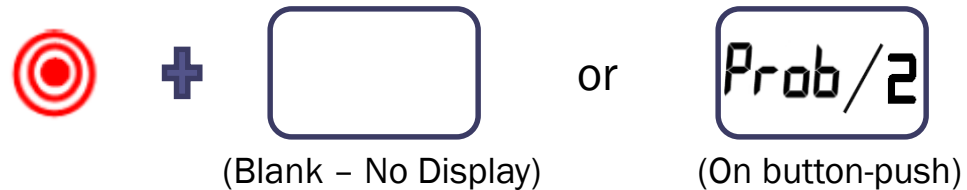
PROBE CONNECTION ERRORS - SYMPTOMS

(SECTION 7 DATA LOGGER INSTRUCTION MANUAL)

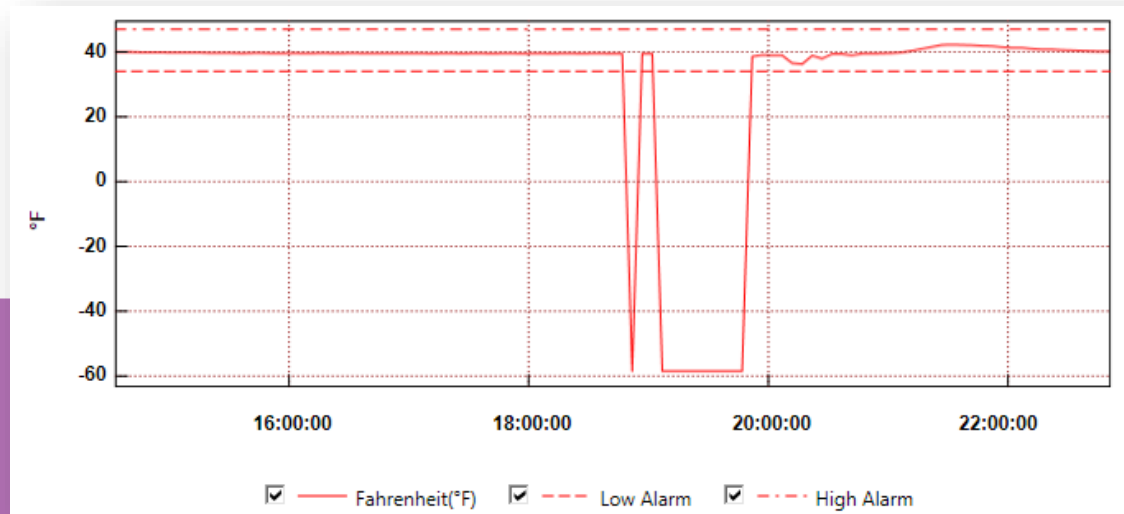
During Reset:



During Recording:



On Graph:



DATA LOGGERS

PROBE CONNECTION ERRORS - DEFINITION

(SECTION 7 DATA LOGGER INSTRUCTION MANUAL)

Probe errors occur when the data logger does not detect a probe attached.

Explanation:

1. No probe attached
2. Probe is loose, or
3. Short in the wire.

Solution

- **1 and 2 - Connect the probe!** Error will correct itself with next 5 minute reading.
- **3 - Replacement** - If the probe is firmly connected and still getting errors OR if getting probe errors in the middle of the night when no one is around, then there is a short in the wire. We will replace the data logger.

Prevention

- Handle the wire gently and by the plug, not the wire.

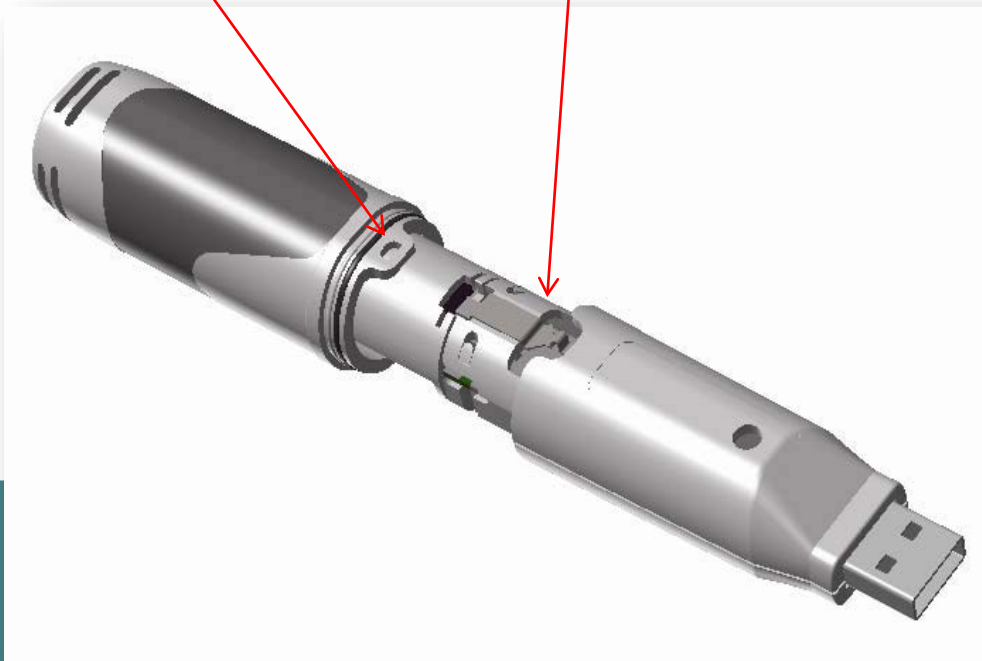


DATA LOGGERS

BROKEN TABS

Symptom

Plastic loop that holds silver tab is broken and two pieces of data logger will not stay together.



Solution - Replacement

We will send you a new data logger

Prevention – Do not push the acrylic cap on all the way.



DATA LOGGERS

DATA LOGGER NOT RECOGNIZED

If you get this error message:



No EasyLog USB Data Logger found, is the Data Logger:

- a) Plugged in?
- b) Battery OK?
- c) USB driver installed?

And your data logger has never been plugged in before:

- Try a different USB port
- Or reinstall the software and driver.

If your data logger has been plugged in before with no error:

- Change the battery (see Section 15).

DATA LOGGERS

LOW/DEAD BATTERY

Unfortunately the VFC 5000TP does not have an obvious low battery indicator.

Low/Dead Battery Indicator



No EasyLog USB Data Logger found, is the Data Logger:

- a) Plugged in?
- b) Battery OK?
- c) USB driver installed?

- LED is flashing every 20 seconds instead of every 10 seconds.
- **Absolutely NO** LED or display

- **Red lights** are not low battery indicators!
- Other than triple flash “probe connection errors,” red lights **ALWAYS** mean out-of-range temperatures. **RESPOND and INVESTIGATE!!!**

DATA LOGGERS BASICS

Resources

Montana VFC Program:

<http://www.dphhs.mt.gov/publichealth/immunization/vaccinesforchildren.shtml>

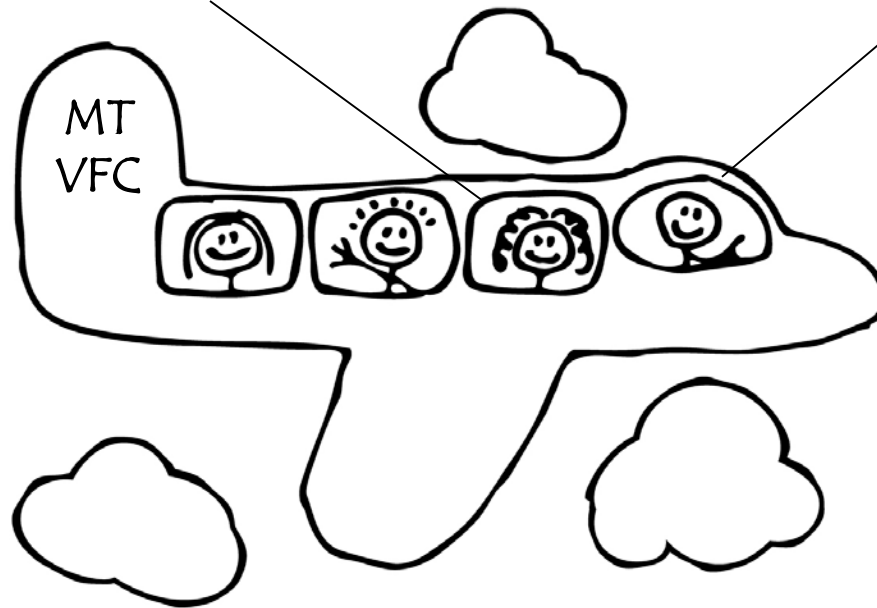
VFC Provider Handbook
Data Logger Instruction Manual
EasyLog Software Download
Paper Temperature Logs
Link to Vaccine Incident Report

CDC Vaccine Storage and Handling Toolkit:

<http://www.cdc.gov/vaccines/recs/storage/toolkit/>

Katie Grady-Selby
VFC Quality Specialist
444-1613
kgrady@mt.gov

Lori Hutchinson
Vaccine Manager
444-0277
lhutchinson@mt.gov



Questions?

Montana Immunization
Program
444-5580
hhsiz@mt.gov